

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Erin & Todd Graham, Allen & Susan Graham Trust, Gary Graham Living Trust, Lee & Delphine Graham, P.O. Box 205, Lodge Grass, MT 59050
2. Type of action: Application to Change an Existing Irrigation Water Right 43O 30111880
3. Water source name: Lodge Grass Creek
4. Location affected by project: Sections 25, 26, 35 and 36, T8S, R33E, Big Horn County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to retire the entire 154.2 AC irrigated under the three Statements of Claim and add a 153.9 AC center pivot sprinkler system in an entirely new place of use. The Applicant proposes to abandon all of the points of diversion from Lodge Grass Creek except the POD for Statement of Claim 43O 14952-00 in NWNENE Section 35, T8S, R33E. If approved, the three Statements of Claim would have a single point of diversion and a new place of use. The Applicant proposes to limit the diverted volume of water to the center pivot sprinkler system to prevent any increase in consumptive use. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Department of Natural Resources and Conservation
Montana Natural Heritage Program
Montana Sage Grouse Habitat Conservation Program
United States Natural Resources and Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – Lodge Grass Creek is not listed by the Montana Department of Fish, Wildlife and Parks as a chronically or periodically dewatered concern area. The proposed change would decrease the amount of water diverted from Lodge Grass Creek leaving approximately 3.0 CFS in the creek compared to historical practices. The change would increase irrigation season flows in Lodge Grass Creek.

Determination: Possible positive impact

Water quality – The Montana Department of Environmental Quality does not monitor Lodge Grass Creek and so the creek is not listed as impaired or threatened. The proposed change moves the area of irrigation farther from the creek and uses a high efficiency center pivot sprinkler system. The increased distance and higher efficiency would decrease the likelihood that fertilizer runoff would reach the creek.

Determination: Possible positive impact

Groundwater – The project will increase the availability of groundwater in the area of the new irrigation. Groundwater at the location of retired irrigation will not be effected because it is so close to Lodge Grass Creek. No effect to groundwater quality is predicted.

Determination: No impact

DIVERSION WORKS – The project proposes to use an existing point of diversion on Lodge Grass Creek which would no change the current situation in terms of channel impacts, flow modification or riparian areas. The project proposes to cease using multiple other points of diversion on Lodge Grass Creek thereby reducing current impacts to the channel and riparian areas. There are no dams or wells included in the proposed project.

Determination: Possible positive impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – The Montana Natural Heritage Program lists 39 animal species of concern and 18 plant species of concern in Big Horn County. Discontinuing irrigation along the creek bank and leaving water in the source both tend to increase habitat. The new place of use is currently in agricultural production and using a center pivot system for irrigation on these acres does not change available habitat. No barriers to migration will be created and, in general, available habitat will increase. A letter from Carolyn Sime, Montana Sage Grouse Habitat Conservation Program Manager, dated June 20, 2017, the project is consistent with Sage Grouse Conservation strategy.

Determination: No significant impact

Wetlands – The new place of use is elevated from Lodge Grass Creek, contains no wetlands and no wetlands are proposed. The area along Lodge Grass Creek that will no longer be irrigated is

periodically inundated and may locally contain isolated wetlands. The potential wetland areas would benefit from relocation of the irrigation.

Determination: Possible positive impact

Ponds – There are no ponds in the project area and no ponds are proposed.

Determination: No impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil type mapped by the United States Natural Resource and Conservation Service in the project area is Shaak silty clay loam. This is a well-drained soil that is very slightly saline to moderately saline. The use of high efficiency sprinkler systems on existing agricultural land will not degrade the soil or alter its stability. The relatively low salinity of the soil makes saline seep unlikely.

Determination: No impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The current vegetative cover in the project area is agricultural. No change in vegetative cover is proposed. The installation of the center pivot sprinkler system could allow for the establishment or spread of noxious weeds. It will be the responsibility of the landowner to monitor and control noxious weeds.

Determination: No impact

AIR QUALITY – Irrigation of agricultural land has no potential to negatively affect air quality.

Determination: No impact

HISTORICAL AND ARCHEOLOGICAL SITES – The project is not located on State or Federal Lands.

Determination: Not Applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – A center pivot sprinkler system requires inputs of energy in excess of flood irrigations systems.

Determination: No significant impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental goals or plans.

Determination: No impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – The project area is not used to access recreational or wilderness activities and continued use of the project area for agriculture will not impact those activities.

Determination: No impact

HUMAN HEALTH - Irrigation of agricultural land has no potential to negatively affect human health.

Determination: No impact

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes___ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: Not applicable

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact
- (b) Local and state tax base and tax revenues? No significant impact
- (c) Existing land uses? No significant impact
- (d) Quantity and distribution of employment? No significant impact
- (e) Distribution and density of population and housing? No significant impact
- (f) Demands for government services? No significant impact
- (g) Industrial and commercial activity? No significant impact
- (h) Utilities? No significant impact
- (i) Transportation? No significant impact
- (j) Safety? No significant impact
- (k) Other appropriate social and economic circumstances? No significant impact

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: No secondary impacts related to the proposed project are recognized.

Cumulative Impacts: No cumulative impacts related to the proposed project are recognized.

3. ***Describe any mitigation/stipulation measures:*** None
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only reasonable alternative to the proposed project is the no-action alternative. The no-action alternative prevents the applicant from improving agricultural production and precludes some beneficial environmental effects of the project.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

- 2 ***Comments and Responses:*** None

3. ***Finding:***
Yes___ No_X__ Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant negative environmental impacts were recognized in association with the proposed project and several possible positive impacts were noted. The lack of negative impacts makes the environmental assessment the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison

Title: Deputy Regional Manager

Date: 9/20/2017